

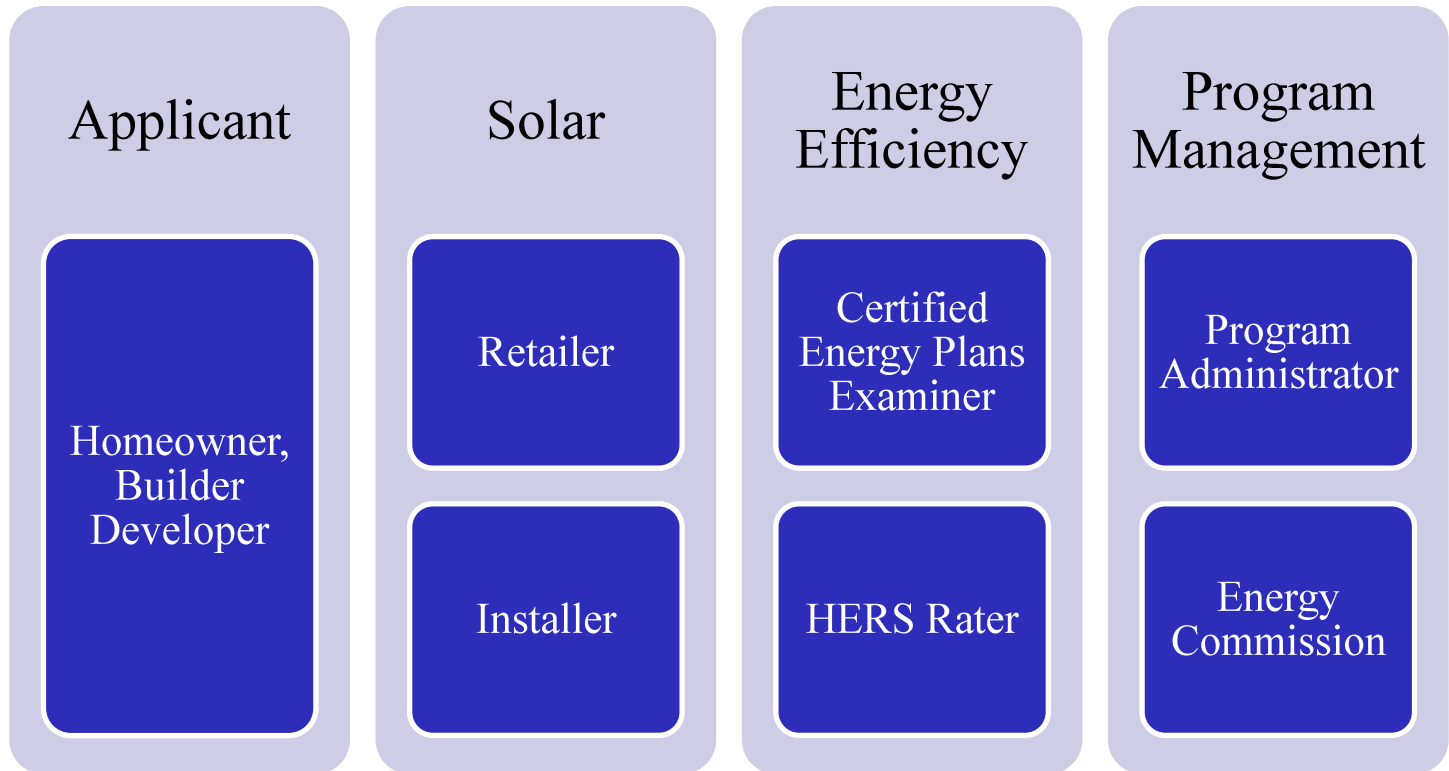


NSHP Incentive and Installation Process

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Players



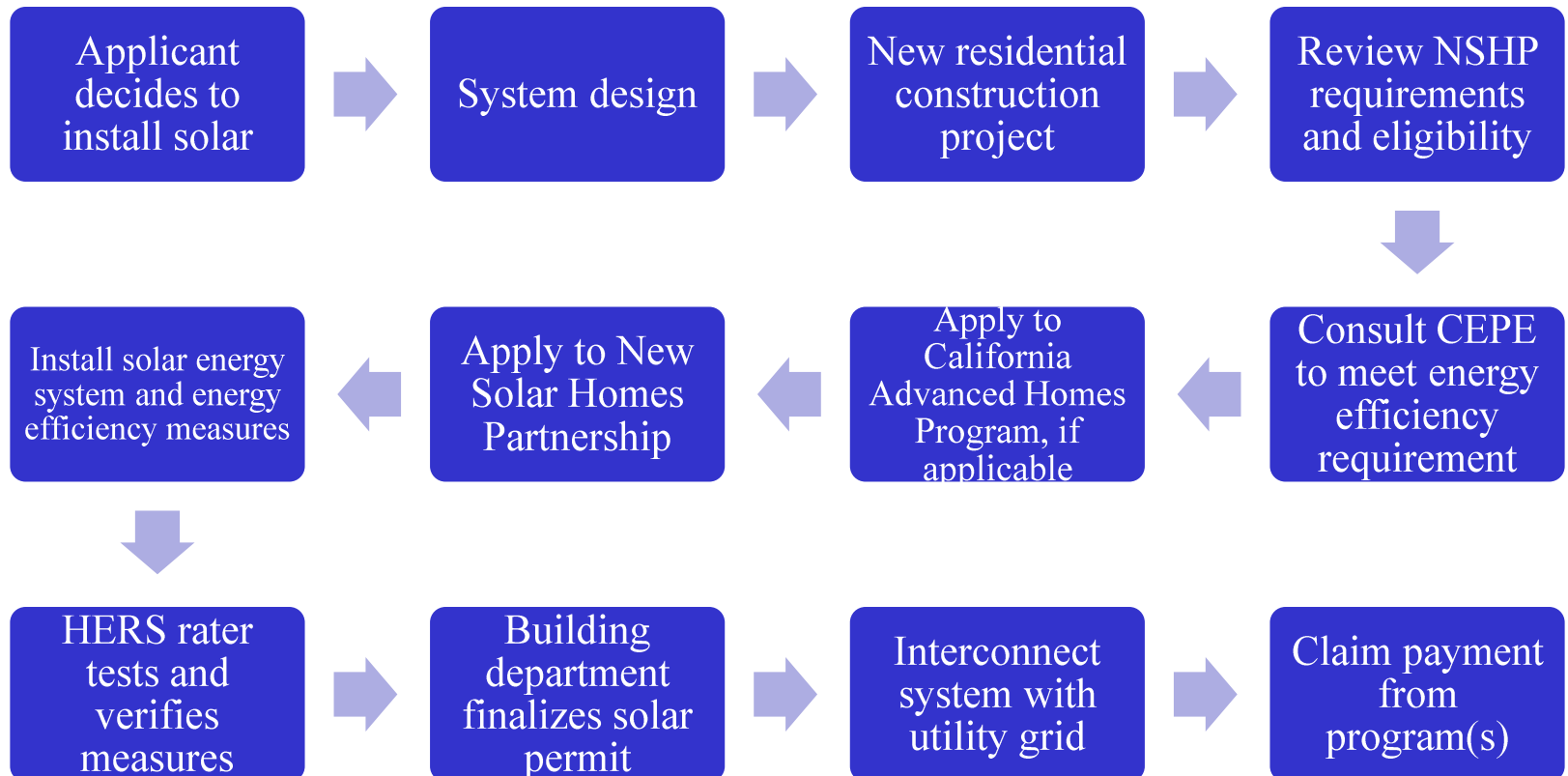


Before Applying to the NSHP...

- Read the NSHP Guidebook
- Consider what stage of construction your project is in
 - Can project be designed to meet the minimum energy efficiency requirement?
 - Eligible for incentives with California Advanced Homes Program?
 - Can everything in your project be verified by a HERS rater?



“The Process”





California Advanced Homes Program (CAHP)

If project meets 2008 Bldg Stds, consider applying to California Advanced Homes Program (CAHP) for energy efficiency incentives

Submit application form, Title 24 Report, construction plans, equipment documents (if required by utility) to CAHP

CAHP conducts review/plan-check

Approval in CAHP = meet NSHP energy efficiency requirements and reserved money for energy efficiency



Complete NSHP Applications...

- ✓ Meet all NSHP program requirements and administrative expectations.
 - Have consistent names, site addresses, and equipment on all supporting documentation.
 - Have all of the required signatures on the documents.
- ✓ Use the newest versions of documents and calculation tools supplied and/or authorized by the California Energy Commission.
- ✓ Include all required supporting documentation with the reservation application or payment claim package.



Big Picture – NSHP Application Process

Reservation

- Applicant submits reservation application package.
- Program administrator reviews and approves. Incentive is reserved for applicant.

Installation and Verification

- Applicant installs PV system and energy efficiency measures.
- HERS rater verifies and tests measures installed.
- Building department finalizes solar permit.
- Applicant applies for interconnection.

Payment Claim

- Applicant submits payment claim package to incentive program(s).
- Program administrator reviews and approves. Incentive is paid.



Big Picture – NSHP Application Process

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Payment Claim

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Reservation Application Overview

General Info

- NSHP-1

Proof of New Res Constr

- Building Permit
- Final Subdivision Map

Commitment to Solar

- CF-1R-PV
- Equipment Purchase Agreement
- Labor Contract

Energy Efficient

- Title 24 Report
- Construction Plan-Set

Additional Information for Certain Housing Types

- Regulatory Agreement (Affordable Housing)
- Build-Out Schedule (Solar as an Option)



Reservation Application Form (NSHP-1)

What It Is:

- Provides general information on the project (applicant information, location, housing type, utility, HERS rater information)
- Gives the applicant the option to designate a party who can represent him on NSHP matters.

Recommended: Select HERS rater(s) for energy efficiency and solar by NSHP reservation time.



New Residential Construction Building Permit

What It Is:

–Document from the city or county stating that a new home is being constructed on the site where the solar energy system is being installed.



Final Subdivision Map

What It Is:

—A document that illustrates where all of the homes participating in the NSHP are located. The document should be recorded with the city or county.



Certificate of Compliance Form: NSHP PV (CF-1R-PV)

What It Is:

- It documents the system specifications and provides an estimated incentive amount.
- Each CF-1R-PV comes with two digital files. These files must also be submitted.



Equipment Purchase Agreement

What It Is:

- Indicates the specific system components to be installed on the project
- Leased systems are exempt if an installation contract lists equipment.

Reminder: The retailer must be registered with the Energy Commission through the Go Solar California website:
[www.gosolarcalifornia.ca.gov/database/addcompany.php]



Installation Contract

What It Is:

- The installation contract specifies the work the solar installer will be performing on the project.
- Self-installs are exempt

Reminder: The installer must be registered with the Energy Commission through the Go Solar California website:
[www.gosolarcalifornia.ca.gov/database/addcompany.php]
and have an active California A, B, C-10 or C-46 license.



Energy Efficiency Documentation – Title 24 Report (CF-1R/PERF-1)

What It Is:

–A document that shows the energy efficiency measures being installed on the project. CF-1R is for residential projects. PERF-1 is for non-residential projects. Input file must also be submitted.

Reminder: The CF-1R is generated by a Certified Energy Plans Examiner who is certified for the appropriate residential type and Building Standards that the home is constructed under.



Energy Efficiency Documentation – Construction Plan-Set

What It Is:

- A compilation of the plans that shows what will be installed on the home.
- Specifically, the NSHP is looking for the set that includes:
 - Architectural, Electrical, Mechanical, and Plumbing (as applicable or available)
 - A window and door schedule that shows sizes and includes ALL skylights (if not shown on the floor plan)
 - Elevation, wall, roof, floor construction assemblies
 - Floor finish schedule (if CF-1R shows High Mass Design)
 - A site plan with a North arrow
 - A list of lots and addresses

Reminder: If project approved through CAHP, energy efficiency documentation waived. Provide CAHP approval letter instead.



Regulatory Agreement

What It Is:

- A document generally between a developer and either the city/county, TCAC or other funding sources that requires the developer to restrict a certain number of units in the project for affordable housing.

What We Look For:

- Executed (signed by all funding sources and the project developer)
- Identifies the project, location, and the number of units subject to affordability requirements (at least 20 percent for extremely low, very low, lower or moderate income persons).
- Restricts affordability to at least 10 years.



Build-Out Schedule

What It Is:

–A builder's projected timeline for completing the construction of dwelling units that will have solar energy systems installed.



Who Provides What?

Applicant

NSHP-1

Building Permit /
Final Subdivision Map

Construction Plan-Set

Regulatory Agreement,
if applicable

Build-Out Schedule,
if applicable

Solar Folks

CF-1R-PV

Equipment Purchase
Agreement

Labor Contract

Certified Energy Plans Examiner

Title 24 Report



Putting It Together: Solar as Standard Projects

General Info

- NSHP-1

Proof of New Res Constr

- Final
Subdivision
Map

Commitment to Solar

- CF-1R-PV
- Equipment
Purchase
Agreement
- Labor
Contract

Energy Efficient

- Title 24
Report
- Construction
Plan-Set



Putting It Together: Base Incentive Projects Except Solar as an Option

General Info

- NSHP-1

Proof of New Res Constr

- Building Permit, OR
- Final Subdivision Map

Commitment to Solar

- CF-1R-PV
- Equipment Purchase Agreement
- Labor Contract

Energy Efficient

- Title 24 Report
- Construction Plan-Set



Putting It Together: Affordable Housing Projects

General Info

- NSHP-1

Proof of New Res Constr

- Building Permit, OR
- Final Subdivision Map

Commitment to Solar

- CF-1R-PV
- Equipment Purchase Agreement
- Labor Contract

Energy Efficient

- Title 24 Report
- Construction Plan-Set

Additional Information for Certain Housing Types

- Regulatory Agreement (Affordable Housing)



Next Steps

Reservation

- Applicant submits reservation application package.
- Program administrator reviews and approves. Incentive is reserved for applicant.

Installation and Verification

- Applicant installs PV system and energy efficiency measures.
- HERS rater verifies and tests measures installed.
- Building department finalizes solar permit.
- Applicant applies for interconnection.

Payment Claim

- Applicant submits payment claim package to incentive program(s).
- Program administrator reviews and approves. Incentive is paid.



Putting It Together: Solar as an Option Projects

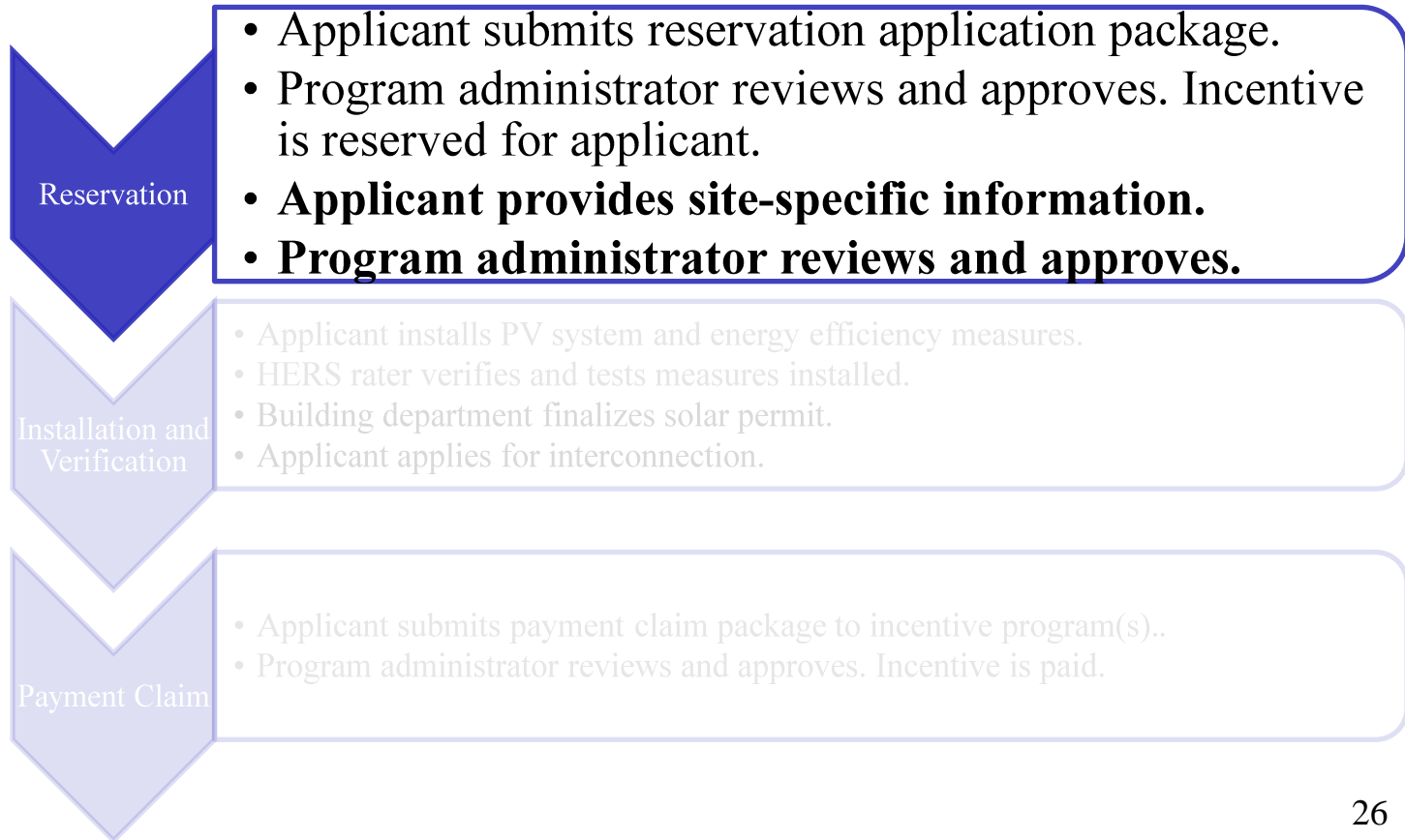
General Info	Proof of New Res Constr	Commitment to Solar	Energy Efficient
<ul style="list-style-type: none">• NSHP-1	<ul style="list-style-type: none">• Final Subdivision Map	<ul style="list-style-type: none">• Equipment Purchase Agreement• Labor Contract	

Additional Information for Certain Housing Types

- Build-Out Schedule



Next Steps: Solar as an Option





Site-Specific Information?

- At reservation, NSHP assumes applicant does not know where the solar systems will be located
- Once a location of a system has been identified, applicant submits documentation specific to that site
 - NSHP 1.5
 - CF-1R-PV
 - Title 24 Report
 - Construction plan-set

Recommended: If possible, apply entire project to CAHP so energy efficiency documentation waived at this stage.



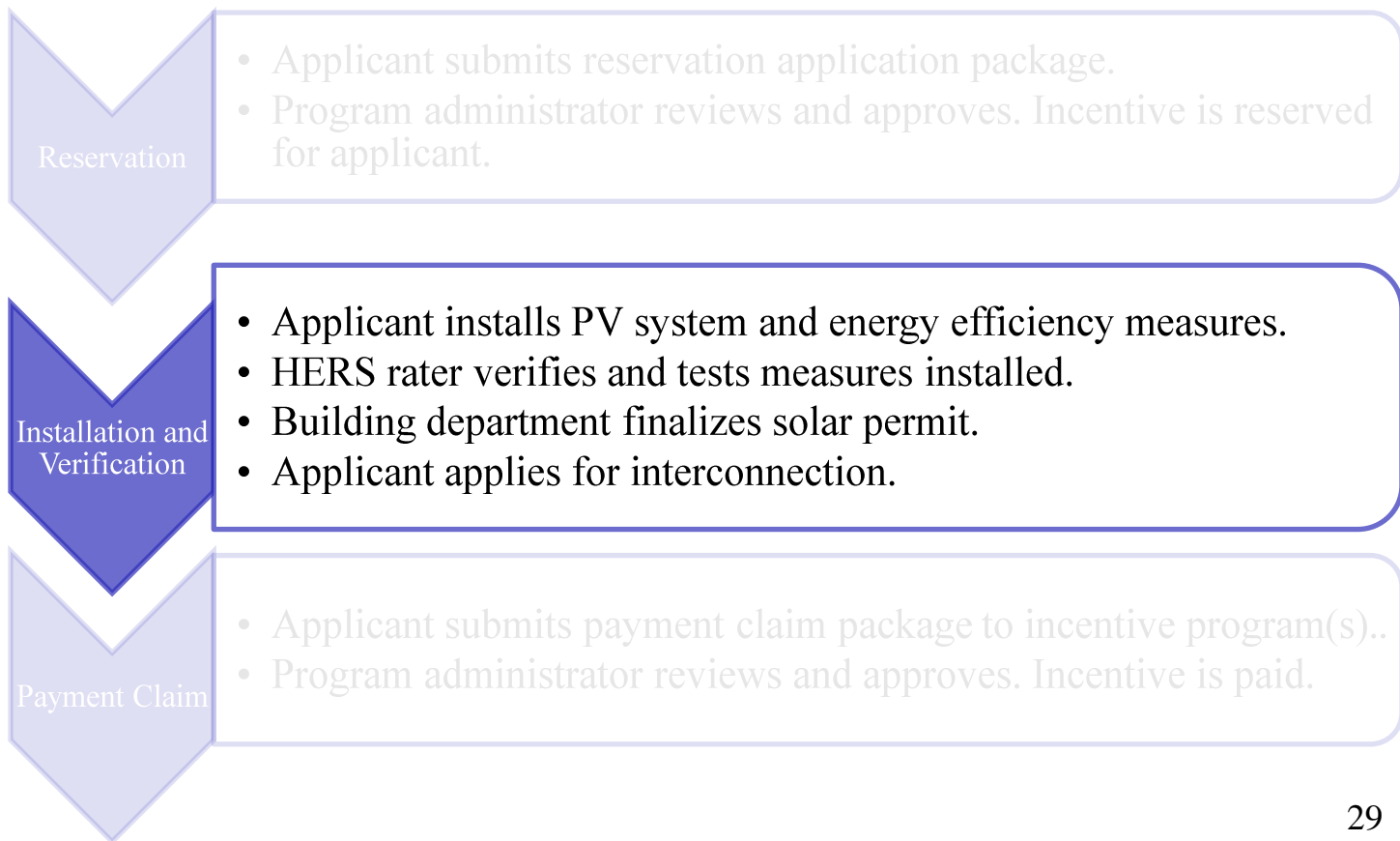
Solar as an Option Approval Form

What It Is:

–A document (NSHP-1.5) to be returned to the Program Administrator completed once a site has been identified to have a solar energy system installed.



Big Picture – NSHP Application Process





Review Questions

- If your project meets 2008 Bldg Stds, what program can you apply to to receive energy efficiency incentives?
- What is the role of a Certified Energy Plans Examiner?
- Where do solar retailers and installers register to be qualified to sell and install for the NSHP?



HERS Raters

- A HERS rater is a third-party inspector who tests and verifies energy efficiency measures and the solar energy system.
- NSHP HERS raters are affiliated with either CHEERS or CalCERTS.



HERS Raters

- **HIGHLY RECOMMENDED** that applicants select a HERS rater early in the application process. Verification of some energy efficiency measures may be required to be completed as early in the construction process as foundation or rough-in (i.e., assembly, piping insulation)
- **RECOMMENDED** that applicants select a HERS rater that can verify both energy efficiency measures and solar.



NSHP Energy Efficiency HERS Verification

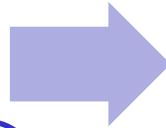
- **All energy efficiency measures** used to meet the **above Title 24 requirements** for program participation shall be verified by a qualified HERS Rater.
 - This means: everything on the CF-1R will be verified by a HERS Rater.
 - This means: some measures may need to be verified early in the construction process (e.g., assembly, QII)
- HERS Rater goes to site multiple times during construction process to verify all measures.



Before An EE HERS Rater Visit

Complete

- Pertinent sections of the Installation Certificate for Energy Efficiency Measures (CF-6R)
- All information on CF-6R should match the CF-1R.



Submit

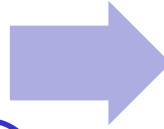
- To the HERS rater who verifies the energy efficiency measures



Before A PV HERS Rater Visit

Complete

- An Installation Certificate for Solar (CF-6R-PV)
- All information on CF-6R-PV should match the CF-1R-PV.
- One CF-6R-PV for every system installed.



Submit

- To the HERS rater who verifies the solar energy system.

Reminder: Appendix 2 of the NSHP Guidebook provides detailed information on how to conduct a PV verification.



After HERS Rater Visit

Energy Efficiency

CF-4R-NSHP created
after all energy efficiency
measures used to meet the
above Title 24
requirements are verified.

CF-4R, if applicable,
created after specific
HERS tests passed
inspection

Solar

CF-4R-PV created
after the solar energy
system is verified



CALIFORNIA ENERGY COMMISSION

Scenario	When This Occurs	What New Information Needs to be Provided to the Program Administrator	What the Program Administrator Does with the New Information	Next Steps
Changes in Solar System Specifications (e.g., equipment, azimuth, shading)	While the Program Administrator is reviewing the application	Signed CF-1R-PV and electronic input files	Re-review	Wait for reservation approval
	After the application is approved	Signed CF-1R-PV and electronic input files	Re-review and upload to HERS database if HERS rater information has already been provided	Continue with installation and have the system verified by a HERS rater
	After a HERS verification is conducted	Signed CF-1R-PV and electronic input files	Re-review and upload to HERS database	HERS rater re-verifies solar system. If system passes test, then a CF-4R-PV is created.
Changes in the Energy Efficiency Measures, Construction Plan-Set	While the Program Administrator is reviewing the application	Signed CF-1R and electronic input file	Re-review to verify project still meets the minimum energy efficiency requirement	Wait for reservation approval
	After the application is approved	Signed CF-1R and electronic input file	Conduct a second plan-check to verify project still meets the minimum energy efficiency requirement and upload to HERS database if HERS rater information has already been provided	Continue with installation and have the measures verified by a HERS rater
	After a HERS verification is conducted	Signed CF-1R and electronic input file	Conduct a second plan-check to verify project still meets the minimum energy efficiency requirement and upload to HERS database	HERS rater re-verifies measures. If the project passes tests, then a CF-4R is created.

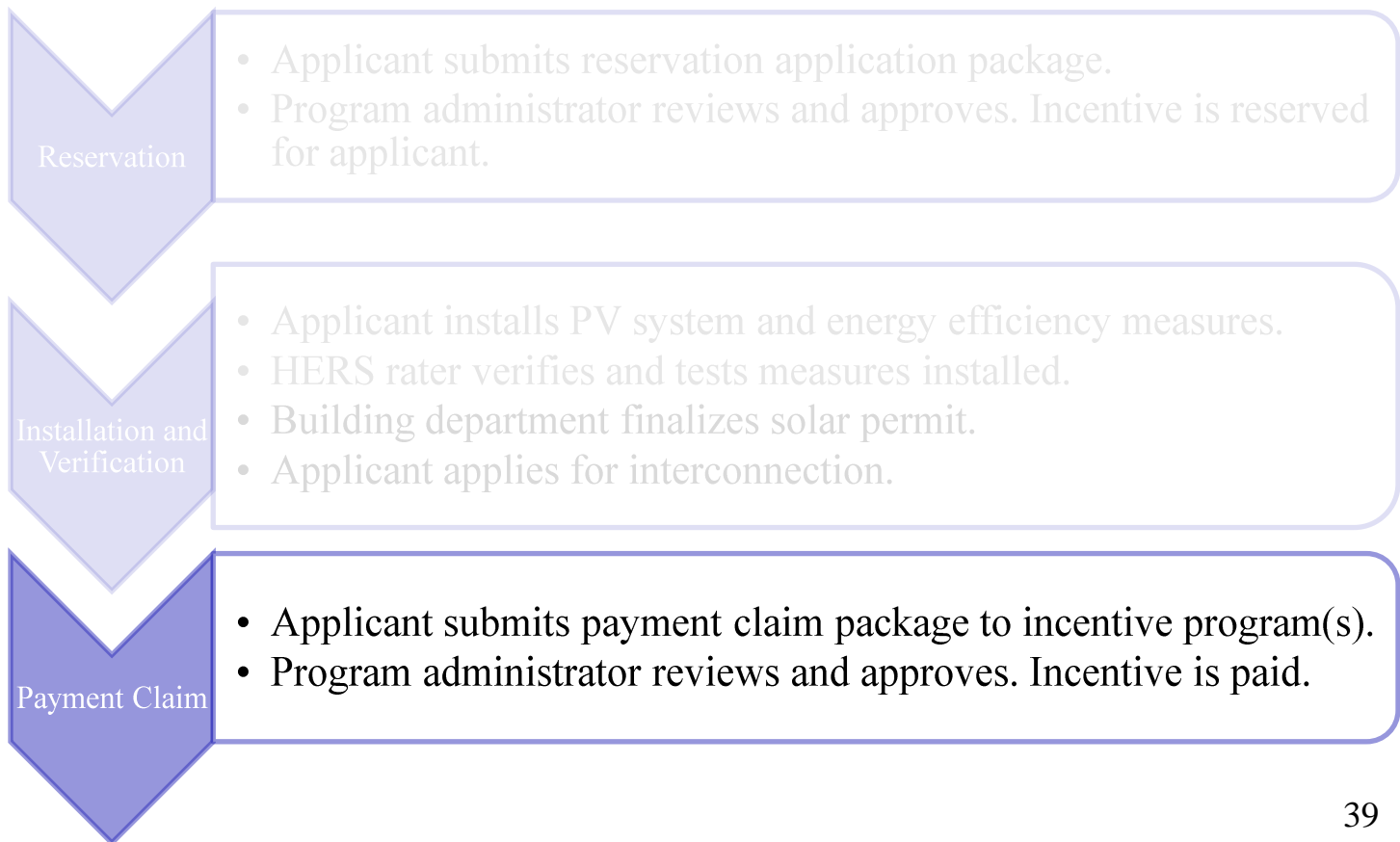


Review Questions

- What on the Title 24 Report is verified by the HERS rater?
- What document does the builder/subcontractor fill out before an EE rater visits?
- What needs to be re-submitted if there are changes to the solar energy system?



Big Picture – NSHP Application Process





Payment Claim Overview

General Info	Warranty Coverage	HERS Verification	Interconnect
<ul style="list-style-type: none">• NSHP-2• STD-204	<ul style="list-style-type: none">• NSHP-3	<ul style="list-style-type: none">• CF-4R-PV• CF-4R-NSHP• CF-4R	

Additional Information for Certain Housing Types

- Lease Agreements or Power Purchase Agreements



Payment Claim Form (NSHP-2)

What It Is:

- A document that confirms the incentive amount for the site
- Requests data on various components of the NSHP process
- Allows the payment to be reassigned.
- Original, wet signatures required on form.



Payee Data Record (STD-204)

What It Is:

- A standardized State document that must be completed by any entity that will be receiving funds from the State.
- If requested by the Program Administrator, applicant may also need to submit a W-9 Form.



Ten Year Warranty Form (NSHP-3)

What It Is:

- This document indicates what is being covered by the ten-year warranty.
- Manufacturer's warranties for modules and inverters also required if only system installation is covered by 10-year warranty.



Lease Agreement/PPA

What It Is:

- Agreements for systems that are not initially purchased when applying to the NSHP.

What We Look For:

- Term of the agreement is a minimum of 10 years.
- The lessee is given the option to renew the lease, purchase or remove the system at the end of the initial term of the lease.
- Agreement demonstrates that the NSHP funding benefits the end-use customer
- The agreement is signed on or after July 1, 2009.



Who Provides What?

Applicant or
Applicant's
Representative

NSHP-2

STD-204

Lease Agreements or
PPAs, if applicable

Solar Folks

NSHP-3

HERS Rater

CF-4R-PV, if
verification
conducted by
CHEERS solar rater



Putting It Together – Documents for All Systems

General Info	Warranty Coverage	HERS Verification	Interconnect
<ul style="list-style-type: none">• NSHP-2• STD-204	<ul style="list-style-type: none">• NSHP-3	<ul style="list-style-type: none">• CF-4R-PV, if solar verified by CHEERS rater• CF-4R-NSHP• CF-4R	

Additional Information for Certain Housing Types

- Lease Agreements or Power Purchase Agreements, if applicable



Verified by Program Administrator

General Info	Warranty Coverage	HERS Verification	Interconnect
<ul style="list-style-type: none">• NSHP-2• STD-204	<ul style="list-style-type: none">• NSHP-3	<ul style="list-style-type: none">• CF-4R-PV• CF-4R-NSHP• CF-4R, if applicable	

Additional Information for Certain Housing Types

- Lease Agreements or Power Purchase Agreements, if applicable



After Payment Claim is Approved

- PG&E and SDG&E projects
 - PG&E and SDG&E will issue a check for the incentive amount directly to the NSHP payee.
- SCE projects
 - The CEC will issue a check for the incentive amount directly to the NSHP payee.



Review Questions

- What document requires original, wet signatures?
- What other documentation must be provided if only system installation is covered by the 10 year warranty?
- Who is happy when the entire process is over?



NSHP Resources

Go Solar California Website

- <http://www.gosolarcalifornia.ca.gov/index.php>

NSHP Forms and Documents

- <http://www.gosolarcalifornia.ca.gov/documents/nshp.php>
- http://www.energy.ca.gov/title24/2008standards/residential_manual.html#forms

Registered Retailer/Installer Database

- www.gosolarcalifornia.ca.gov/database/addcompany.php
- www.gosolarcalifornia.ca.gov/database/update.php



NSHP Resources

Certified Energy Plans Examiners: CABEC

- <http://cabec.org/>

HERS Providers

- <http://cheers.org/>
- <https://www.calcerts.com/>

California Advanced Homes Program

- <http://www.californiaadvancedhomes.com/>



NSHP Program Administrator Contact Information

PG&E

- solar@pge.com
- 877-743-4112

SCE

- nshp@sce.com
- 866-584-7436

SDG&E

- newsolarhomes@sdge.com
- 866-631-1744

<http://www.gosolarcalifornia.ca.gov/contactus.html>